CLASS B CERTIFICATION APPLICATION
UNDER PART15, SUBPART B

EUT CAT EYE
MODEL CAT EYE
FCC ID OLLFINRING

SRT REPORT # T9E15-1

PREPARED FOR

LUCKYTECH TECHNOLOGY CO., LTD.
6FL., 117-123 SHUANG FENG ROAD,
HSIN CHUANG, TAIPEI HSIEN,
TAIWAN, R.O.C.

EMI TESTING REPORT

EUT □ CAT EYE

MODEL □ CAT EYE

FCC ID □ OLLFINRING

PREPARED FOR

LUCKYTECH TECHNOLOGY CO., LTD.
6FL., 117-123 SHUANG FENG ROAD,
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PREPARED BY

SPECTRUM RESEARCH & TESTING LABORATORY INC.
NO. 101-10 , LING 8 , SHAN-TONG LI CHUNG – LI CITY ,
TAOYUAN, TAIWAN , R. O. C.
TEL□ (03) 4987684 FAX□ (03) 4986528

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6FL., 119 Shuang Feng Road, Shin Chuang Taipei Hsien Taiwan
TEL: 886-2-29015676-21 FAX: 886-2-29089970 E-MAIL: frank@luckytech.com.tw

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern :

This is to serve as proper written authorization that Spectrum Research and Testing Laboratory, Inc., 15200, Shady Grove Rd., Rockville, MD. 20850, will act as our representative in all matters relating to FCC applications for equipment approval. This includes the signing of all related documents, the transmitting of required fees, and receiving correspondence and notifications from the FCC. All acts performed by Spectrum Research and Testing Laboratory, Inc., especially modifications to our equipment under testing will be carried out on our behalf.

Meantime, the applicant certifies that in the case of an individual applicant (e.g., corporation), no party to the applicant is subject to a denial of federal benefits, that includes FCC benial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S.C. 862. For a definition of a " party " for these purposes see 47 C.F.R. 1.2002 (b).

If you have any questions regarding our applications for equipment approval, please contact Spectrum Research and Testing Laboratory, Inc. by calling (301) 670-2818.

Respectfully,

(Name, Surname)

President
(Position/Title)

DATE : 27.12.99

Effective Dates :

From 27.12.2000 to 27.12.2001

TABLE OF CONTENTS

1. TEST REPORT CERTIFICATION

APPLICANT □ LUCKYTECH TECHNOLOGY CO., LTD.

ADDRESS □ 6FL., 117-123 SHUANG FENG ROAD,
HSIN CHUANG, TAIPEI HSIEN,
TAIWAN, R.O.C.

EUT DESCRIPTION □ CAT EYE

(A) POWER SUPPLY □ 5V

(B) MODEL □ CAT EYE

(C) FCC ID □ OLLFINRING

FINAL TEST DATE □ 12/15/1999

MEASUREMENT PROCEDURE USED

* PART 15 SUB PART B OF FCC RULES AND REGULATIONS (47 CFR PART 15)
* ANSI C63.4 - 1992

We hereby show that

The measurement shown in the attachment were made in accordance with the procedures indicated, and the energy emitted by the equipment was found to be within the limits applicable.

TESTING ENGINEER □ _____ DATE 12/15/1999
Addison Liu

SUPERVISOR □ _____ DATE 12/15/1999
Jesse Ho

APPROVED BY □ _____ DATE 12/15/1999
Johnson Ho

2. TEST STATEMENT

2.1 TEST STATEMENT

1. This letter is to explain the test condition of this project. The EUT be tested as the following status.

2. The data was shown in this report reflects the worst – case data for the condition as listed above.
Please disregard any other oricessir (s) speed shown in this user manual.

3. EUT conditions.

TX Operating frequency : 433.960MHz
EUT will include one TX and one RX
PC system, CPU : Pentium 100MHz Clock chip : 66MHz

4. NVLAP logo is to be approved by management (it is according to NVLAP requirement if it need) before use.

2 . 2 DEPARTURE FROM DOCUMENT POLICIES, PROCEDURE OR SPECIFICATIONS , THE STATEMNT

A . Did have
Any departure from document policies & procedures or from specifications.
Yes _____, No ____ˇ____ .
If yes , the description as below.

B . The certificate and report shall not be reproduced except in full , without the written approval of SRT laboratory.

C . The report must not be used by the client to claim product endorsement by NVLAP or any agency the government.

D . This product is a prototype product.

E . The effect that the results relate only to the items tested.

3. EUT MODIFICATIONS

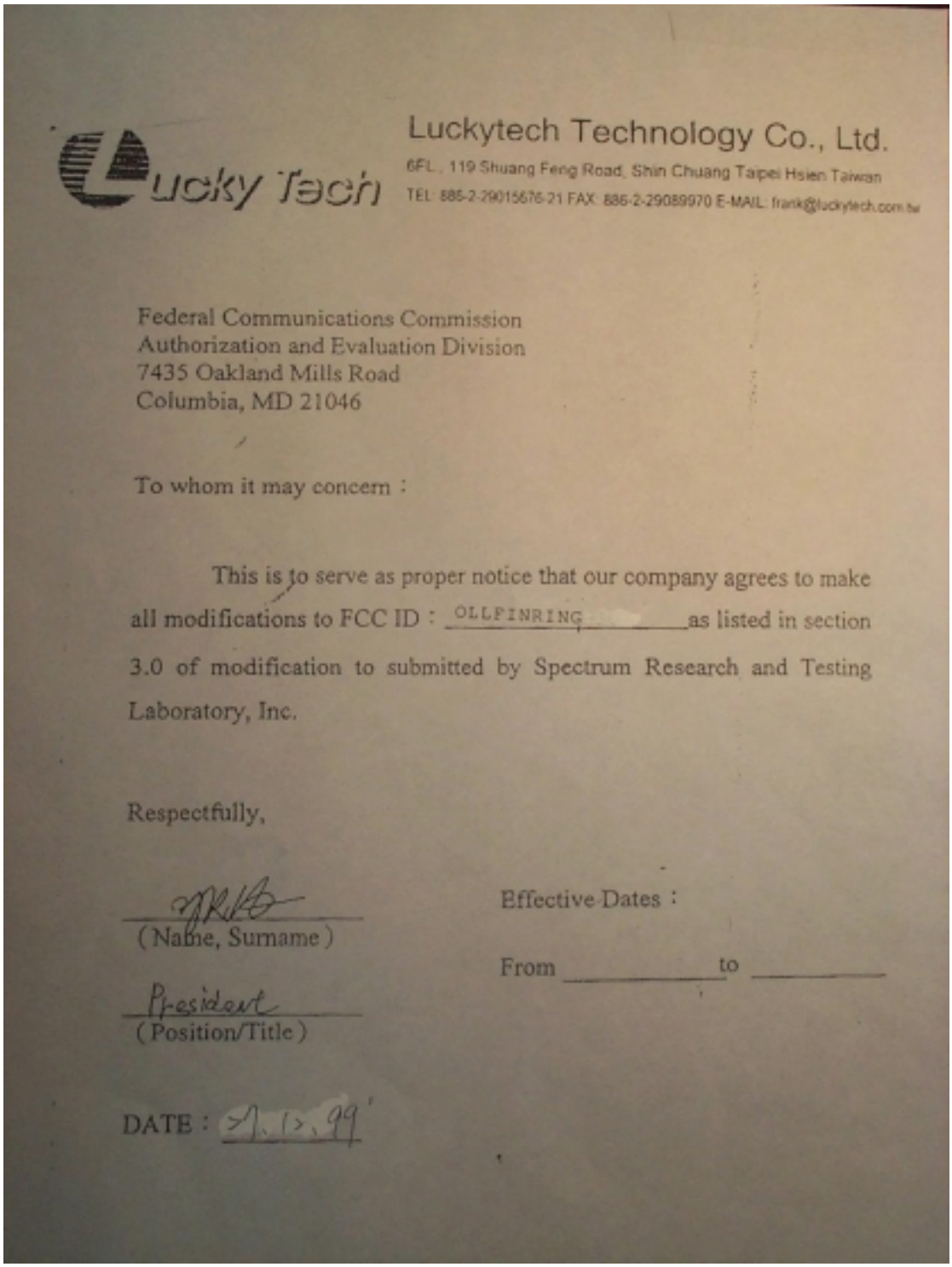
The following accessories were added to the EUT during testing □

(1). To cut off and short resonant antenna at Q5 and C3.

(2). R1 was changed to 510Ω.

(3). To series A bead FBM-11-201209-151 at R1 (King Core 150Ω at 100MHz.

(4). R3 was changed to 100KΩ.



Lucky Tech

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Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern :

This is to serve as proper notice that our company agrees to make all modifications to FCC ID : OLLFINRING as listed in section 3.0 of modification to submitted by Spectrum Research and Testing Laboratory, Inc.

Respectfully,

(Name, Surname)

President
(Position/Title)

DATE : 7.12.99

Effective Dates :

From _____ to _____

4. MODIFICATION LETTER

This section contatins the following documents□

A. Letter of modifications.

5. CONDUCTED POWER LINE TEST

5.1 TEST EQUIPMENT

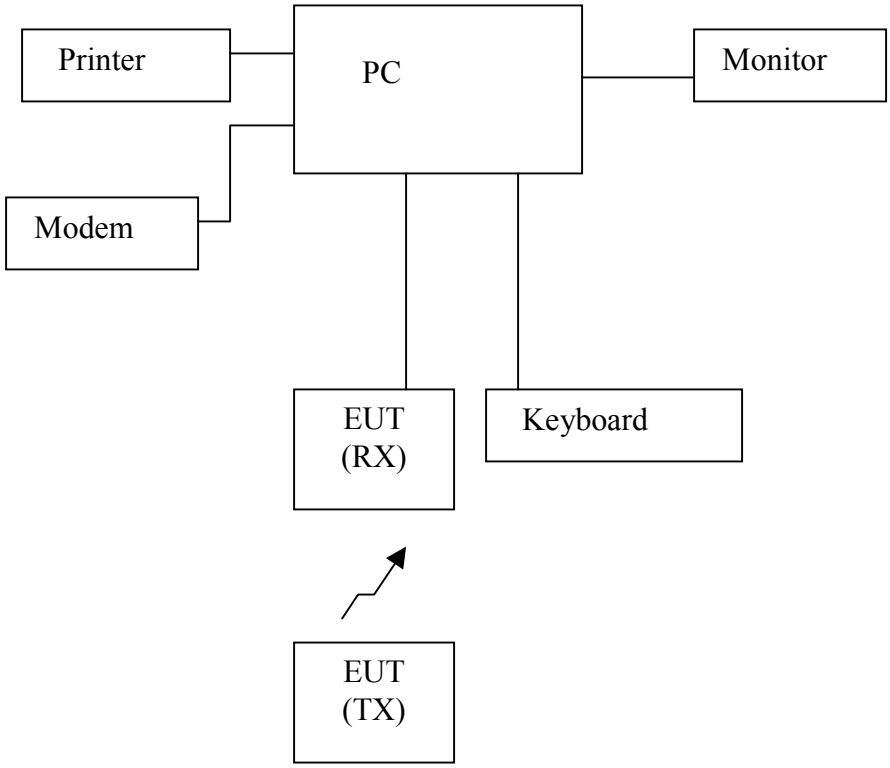
The following test equipment were used during the conducted power line test □

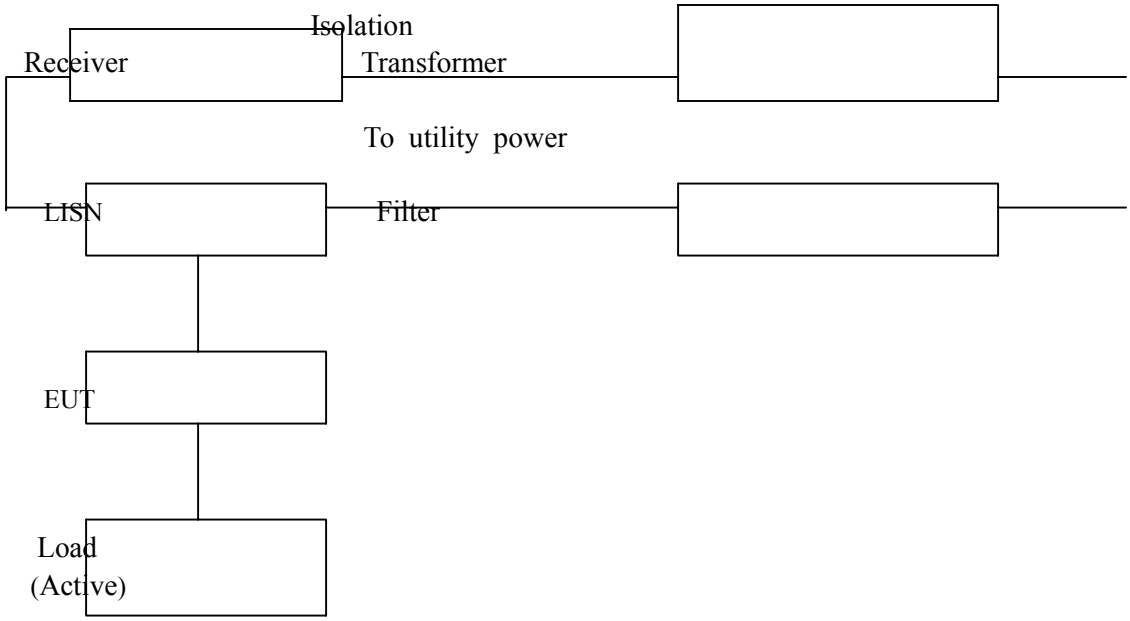
EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DATE OF CAL. & CAL. CENTER	DUE DATE	FINAL TEST
SPECTRUM ANALYZER	9 KHz TO 1 GHz	HP	8590L/ 3624A01317	AUGUST 1999 ETC	1Y	
EMI TEST RECEIVER	9 KHz TO 30 MHz	ROHDE & SCHWARZ	ESHS30/ 826003/008	AUGUST 1999 ETC	1Y	
EMI TEST RECEIVER	9 KHz TO 2750 MHz	ROHDE & SCHWARZ	ESHS30/ 830245/012	AUGUST 1999 R&S	1Y	√
LISN	50 uH, 50 ohm	SOLAR ELECTRONICS	9252-50-R24-BNC/ 951315	AUGUST 1999 ETC	1Y	√
LISN	50uH, 50 ohm	SOLAR ELECTRONICS	9252-50-R24-BNC/ 951318	AUGUST 1999 ETC	1Y	√
SIGNAL GENERATOR	9 KHz TO 1080 MHz	ROHDE & SCHWARZ	SMY01/ 841104/019	APRIL 1999 ETC	1Y	√
POWER CONVERTER	0 TO 300 VAC VAC 47-500 Hz	AFC	AFC-1KW/ 850510	MARCH 1999 ETC	1Y	√

5.2 TEST PROCEDURE

The EUT was tested according to ANSI C63.4 - 1992. The frequency spectrum from 0.45 MHz to 30 MHz was investigated. The LISN used was 50 ohm / 50 uhenry as specified by SECTION 5.1 of ANSI C63.4 - 1992 . Cables and peripherals were moved to find the maximum emission levels for each frequency.

5.3 TEST SETUP





5 . 4 CONFIGURATION OF THE EUT

The EUT was configured according to ANSI C63.4 - 1992. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

DEVICE	MANUFACTURER	MODEL #	FCCID / DoC
CAT EYE	LUCKYTECH TECHNOLOGY CO., LTD.	CAT EYE	OLLFINRING

B. INTERNAL DEVICES

DEVICE	MANUFACTURER	MODEL #	FCCID / DoC
NONE			

C. PERIPHERALS

DEVICE	MANUFACTURER	MODEL # SERIAL #	FCCID / DoC	CABLE
MONITOR	AST	ASTSVGA-LR14	GWG-XXX449XC	1.8m unshielded power cord 1.5m shielded data cable (S2)
PRINTER	HP	2225C	BS46XU2225C	1.8m unshielded power cord 1.2m shielded data cable (S2)
MODEM	TEAM	1200AT	EF56A5103/212A	1.9m unshielded power cord 1.13m shielded data cable (S2)
KEYBOARD	CYRIX	RT6856TW	AQ6-CYPRESSZ15	1.94m unshielded data cable
PC	HP	D3803A	BS4VECTRA500T	1.8m unshielded data cable

- **REMARK**

(1). Cable - S1 □ Single point shielding
S2 □ 360° shielding
S3 □ Double point shielding

(2). Cables - All 1m or greater in length – bundled according to ANSI C63.4 – 1992.

5.5 EUT OPERATING CONDITION

Operating condition is according to ANSI C63.4 - 1992.

1. Connect receiver from PC's PS2 connecter.
2. PC system on and in the WIN98 status.
3. Put EUT buttom ON, and check PC receive the signal.
4. TX Operating frequency : 433.960MHz
5. PC System , CPU : Pentium 100MHz Clcok chip : 66MH

5.6 CONDUCTED POWER LINE EMISSION LIMIT

FREQUENCY RANGE (MHz)	CLASS A	CLASS B
0.45 - 1.705	60.0 dBuV	48.0 dBuV
1.705 - 30	69.5 dBuV	48.0 dBuV

NOTE In the above table , the tighter limit applies at the band edges.

5.7 CONDUCTED POWER LINE TEST RESULT

The frequency spectrum from 0.45 MHz to 30 MHz was investigated.

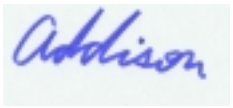
All readinges are quasi – peak values with a resolution bandwidth of 9 KHz.

Temperature □ 25 C Humidity □ 55 %RH

QUASI – PEAK

FREQUENCY (MHz)	LINE1 (dBuV)	LINE2 (dBuV)	LIMIT (dBuV)
0.45	26.1	33.7	48
0.80	*	24.0	48
4.58	14.3	20.0	48
10.0	24.8	24.4	48
20.0	33.1	*	48

REMARKS□ (1). * = Measurement does not apply for this frequency
(2). Uncertainty in conducted emmission measured is <+/ -2dB
(3). Any departure from specification □ N/A



SIGNED BY TESTING ENGINEER

6. RADIATED EMISSION TEST

6 . 1 TEST EQUIPMENT

The following test equipment were used during the radiated emission test □

EQIPMENT / FACILITIES	SPECIFICA-TIONS	MANUFACTUR - ER	MODEL # / SERIAL #	DATE OF CAL. & CAL. CENTER	DUE DATE	FINAL TEST
RECEIVER	20 MHz TO 1000 MHz	R & S	ESVS30/ 841977/003	APRIL 1999 ETC	1Y	√
SPECTRUM ANALYZER	100 Hz TO 1500 MHz	HP	8568B/ 3019A05294	OCT. 1999 ETC	1Y	
SPECTRUM ANALYZER	9 KHz TO 22 GHz	HP	8593E/ 3322A00670	MAY 1999 ETC	1Y	
SPECTRUM ANALYZER	100 Hz TO 1000 MHz	IFR	A-7550/ 2684/1248	JULY 1999 ETC	1Y	
SIGNAL GENERATOR	9 KHz TO 1080 MHz	ROHDE & SCHWARZ	SMY01/ 841104/019	APRIL 1999 ETC	1Y	√
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9003-534	MARCH 1999 SRT	1Y	
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9611-1239	SEP. 1999 SRT	1Y	
BI-LOG ANTENNA	26 MHz TO 2000 MHz	EMCO	3142/ 9608-1073	SEP. 1999 SRT	1Y	√
BI-LOG ANTENNA	26 MHz TO 1100 MHz	EMCO	3143/ 9509-1152	SEP. 1999 SRT	1Y	
PRE-AMPLIFIER	0.1 MHz TO 1300 MHz	HP	8447D/ 2944A08402	APRIL 1999 ETC	1Y	
PRE-AMPLIFIER	0.1 MHz TO 1300 MHz	HP	8447D/ 2944A06412	AUGUST 1999 ETC	1Y	
HORN ANTENNA	1 GHz TO 18 GHz	EMCO	3115/ 9012-3619	JAN. 1999 EMCO	1Y	

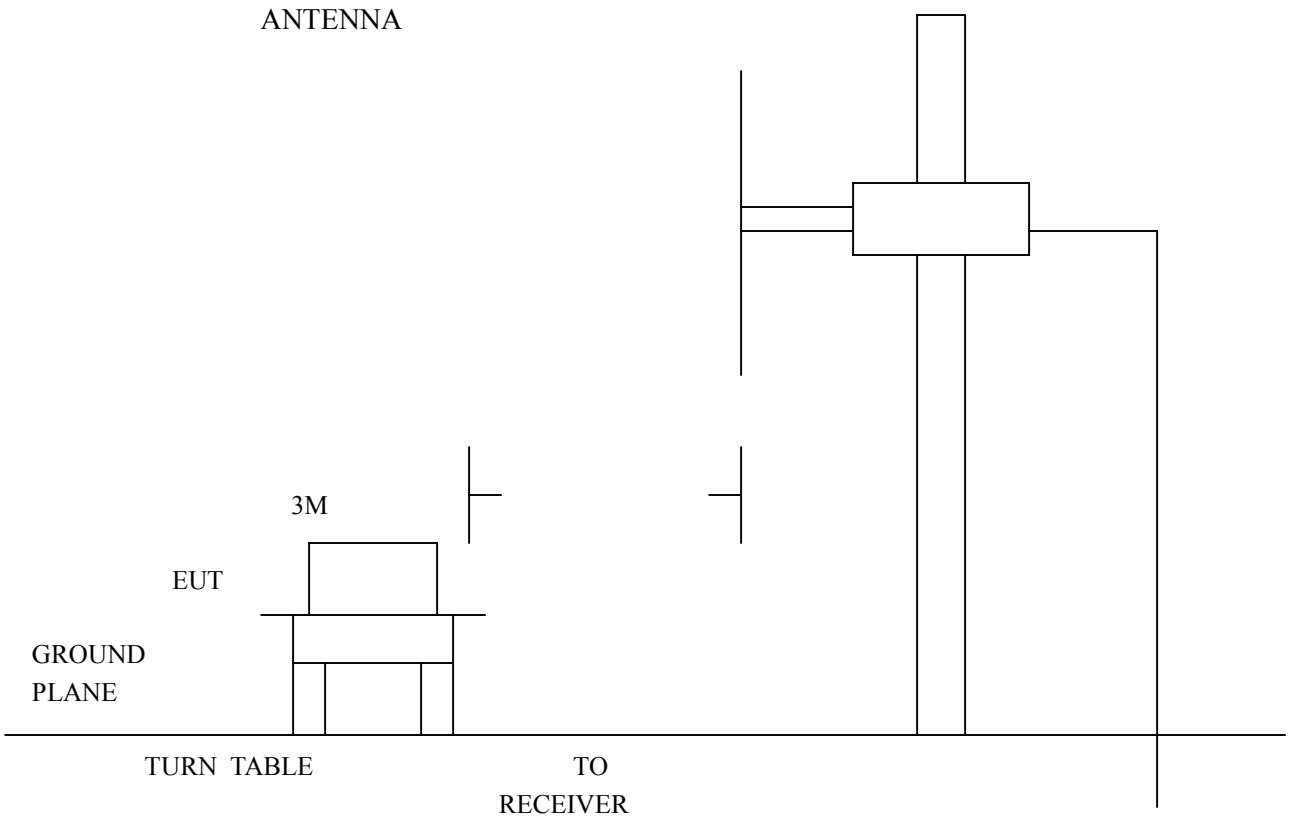
6 . 2 TEST PROCEDURE

(1).The EUT was tested according to ANSI C63.4 - 1992. The radiated test was performed at SRT lab's open site. this site is on file with the FCC laboratory division, reference 31040 / SIT.

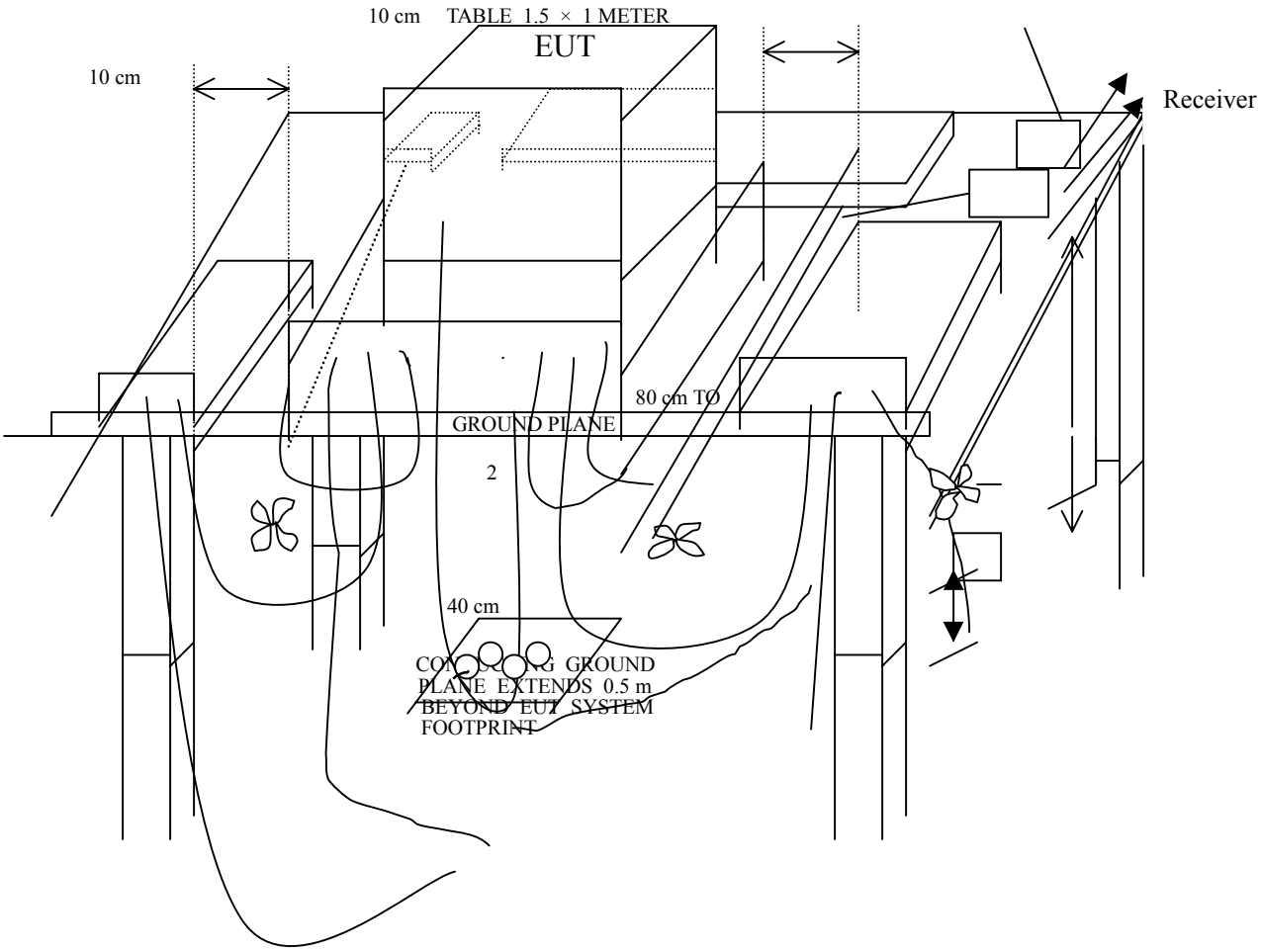
(2).The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-1992.

(3).The frequency spectrum from 30 MHz to 5 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.
(4). The antenna high were varied from 1 m to 4 m high to find the maximum emission for each frequency.
(5). The antenna polarization□ Vertical polarization and horizontal polarization.

6.3 RADIATED TEST SET-UP



6.3 RADIATED TEST SET-UP



6.4 CONFIGURATION OF THE THE EUT

Same as section 4.4 of this report

6.5 EUT OPERATING CONDITION

Same as section 4.5 of this report.

6.6 RADIATED EMISSION LIMIT

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below □

CLASS B

FREQUENCY (MHz)	DISTANCE (m)	FIELS STRENGTH (dBuV/m)
30 - 88	3	40.0
88 - 216	3	43.5
216 - 960	3	46.0

ABOVE 960	3	54.0

CLASS B (OPEN CASE)

FREQUENCY (MHz)	DISTANCE (m)	FIELS STRENGTH (dBuV/m)
30 - 88	3	46.0
88 - 216	3	49.5
216 - 960	3	52.0
ABOVE 960	3	60.0

CLASS A

FREQUENCY (MHz)	DISTANCE (m)	FIELS STRENGTH (dBuV/m)
30 - 88	3	50.0
88 - 216	3	53.5
216 - 960	3	56.0
ABOVE 960	3	64.0

NOTE 1. In the emission tables above, the tighter limit applies at the band edges.

2. Distance refers to the distance between measuring instrument, antenna, and the closest point of any part of the device or system.

6.7 RADIATED EMISSION TEST RESULT

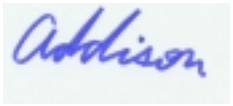
The frequency spectrum from 30 MHz to 5 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.

Temperature : 22 C Humidity : 50 %RH

FREQ. (MHz)	FACTOR (dB)	ANT. FACTOR (dB/m)	READING (dBuV)		EMISSION (dBuV/m)		LIMITS (dBuV/m)
			HORIZ	VERT	HORIZ	VERT	
64.25	0.9	8.70	17.30	13.80	26.90	23.40	40.0
83.75	1.1	8.60	*	15.80	*	25.50	40.0

114.3	1.3	8.60	17.40	*	27.30	*	43.5
132.3	1.3	8.60	*	21.30	*	31.20	43.5
200.0	1.9	10.7	27.50	27.60	40.10	40.20	43.5
266.7	2.1	13.6	21.10	*	36.80	*	46.0
433.9	2.7	17.4	16.20	17.60	36.30	37.70	46.0
867.9	4.1	23.4	15.40	9.100	42.90	36.60	46.0
1000	2.8	24.1	□	□	□	□	54.0
5000	7.1	35.0	□	□	□	□	54.0

REMARKS □ (1). *=Measurement does not apply for this frequency.
(2). Uncertainty in radiated emission measured is <+/-4dB
(3). Any departure from specification □N/A
(4). Factor will include cable loss and correction factor.
(5). Sample calculation
20 log (emission) uV/m = Factor(dB)+Ant. factor(dB/m)+reading(dBuV)
(6). Fund. freg. 433.9MHz



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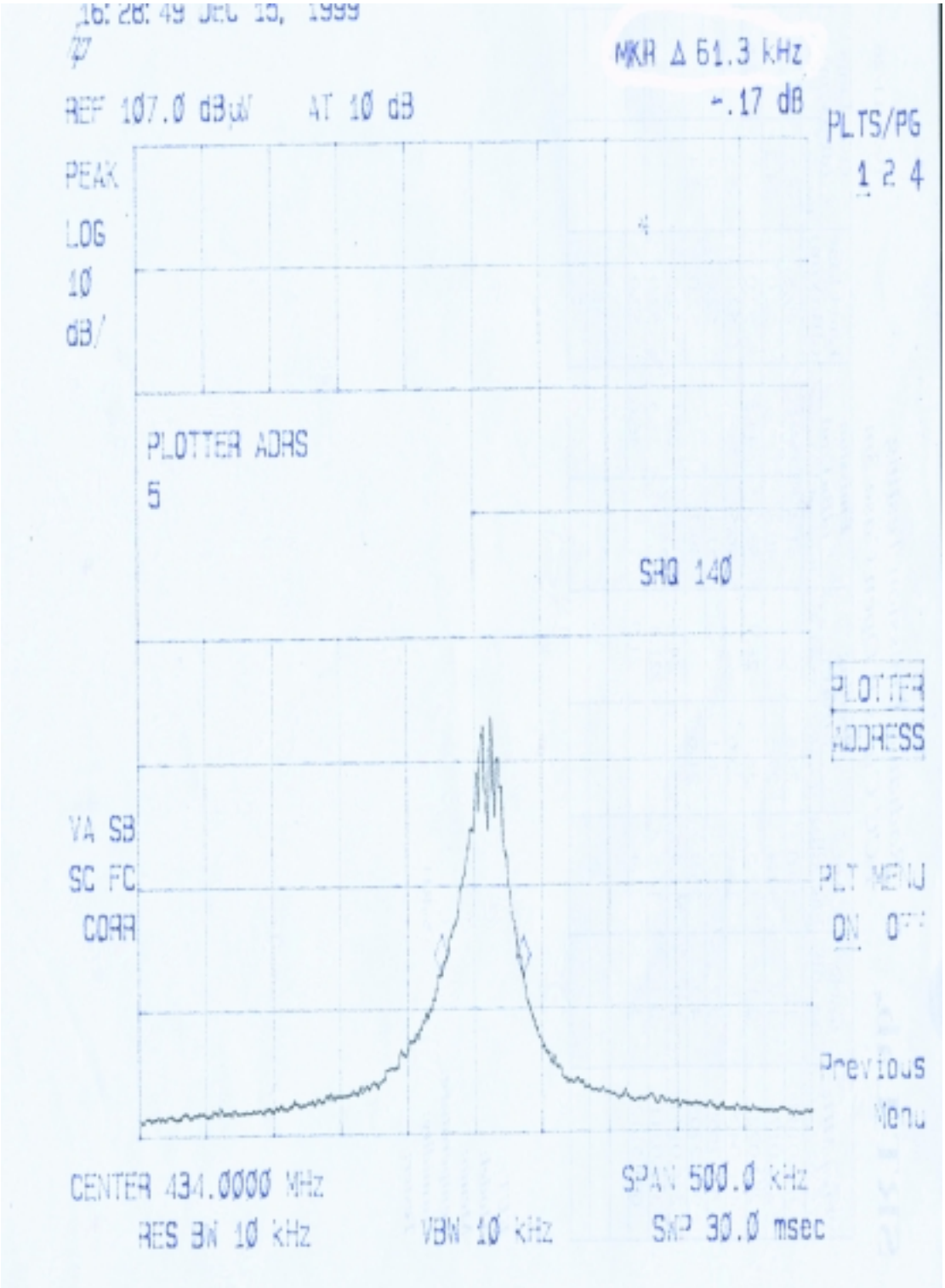
6.8 Bandwidth

6.8.1 Limit

Minimum 20dB bandwidth = 61.3KHz

6.8.2 Test Result

Please see attached plotter.


16: 28: 49 Dec 15, 1999
#7
MKR Δ 61.3 kHz
-.17 dB
REF 107.0 dBµV
AT 10 dB
PLTS/PG
1 2 4
PEAK
LOG
10
dB/
PLOTTER ADRS
5
SRQ 140
PLOTTER
ADDRESS
VA SB
SC FC
CORR
PLT MENU
ON OFF
Previous
Menu
CENTER 434.0000 MHz
SPAN 500.0 kHz
RES BW 10 kHz
VBW 10 kHz
SWP 30.0 msec